

Amendments to the Specification:

Please replace the paragraph spanning lines 4-12 of page 20 of the Substitute Specification as follows:

In this embodiment, the variable refractive index material 22 has a refractive index anisotropy and a dielectric constant anisotropy. This embodiment uses an example in which the dielectric constant anisotropy $\Delta\epsilon (= \epsilon_{\parallel} - \epsilon_{\perp}$ (dielectric constant in parallel to a longer axis of the molecule) - ϵ_{\perp} (dielectric constant in a direction perpendicular to the longer axis of the molecule)) is positive at a frequency f_{11} , and the dielectric constant anisotropy $\Delta\epsilon$ is negative at a frequency f_{12} . Further, this embodiment uses an example in which the refractive index anisotropy n_o (ordinary refractive index) is substantially equal to the refractive index of the transparent material layer 21, and n_e , (extraordinary refractive index) is substantially greater than the refractive index of the transparent material layer 21.

Please replace the paragraph spanning lines 9-20 of page 23 of the Substitute Specification as follows:

Fig. 7 shows a specific example of the driving frequency dependency of the dielectric constant anisotropy $\Delta\epsilon (= \epsilon_{\parallel} - \epsilon_{\perp})$ of the dual-frequency liquid crystal. The example of the nematic liquid crystal shown herein is $\Delta\epsilon > 0$ at a low frequency, As becomes smaller gradually as the frequency becomes higher, and $\Delta\epsilon < 0$ at a high frequency range. Here, when $\Delta\epsilon > 0$, the longer axes of the molecules of the dual-frequency liquid crystal are aligned along the electric field, and when $\Delta\epsilon < 0$, the longer axes of the molecules of the dual-frequency liquid crystal are aligned perpendicularly to

the electric field. Accordingly, by simply varying the frequency, the refractive index of the dual-frequency liquid crystal can be varied in a substantially binary manner (n_o and n_e), and thus the refractive index cannot be varied sequentially. (It should be noted that it may be possible to vary the refractive index by a balance of the anchoring force of the alignment layer and the force of the electric field, but this may encounter various problems as pointed out -in the prior art.)

Please replace the paragraph spanning page 35, line 19 through page 36, line 2 of the Substitute Specification as follows:

In the embodiment of Fig. 21, the variable refractive index material 81 has refractive index anisotropy and dielectric constant anisotropy. The dielectric constant anisotropy, $\Delta\epsilon (= \epsilon_{\parallel} - \epsilon_{\perp})$ (dielectric constant in parallel to the longer axis of the molecule) - (ϵ_{\perp} (dielectric constant in an orientation perpendicular to the longer axis of the molecule)) is positive at a frequency f_{11} , and $\Delta\epsilon$ becomes negative at a frequency f_{12} . Further, the refractive index anisotropy, n_o (ordinary refractive index) is substantially smaller than n_e (extraordinary refractive index).